

### **ABSTRACT OF THE DISCLOSURE**

5 Supercritical fluid-assisted deposition of materials on substrates, such as semiconductor substrates for integrated circuit device manufacture. The deposition is effected using a supercritical fluid-based composition containing the precursor(s) of the material to be deposited on the substrate surface. Such approach permits use of precursors that otherwise would be wholly unsuitable for deposition applications, as lacking requisite volatility and transport characteristics for vapor phase deposition processes.